What is claimed is:

1. A method for measuring and monitoring the setting of a crusher during the crushing process, in which method the erosion of the wearing parts of a crusher is measured and the setting of a crusher is adjusted based on the measurement result so as to maintain the setting at a predetermined value irrespective of the erosion of the wearing parts, **characterized** in that the measurement data indicating the amount of erosion in said wearing parts of the crusher is transmitted wirelessly to the exterior side of the crusher.

2. The method of claim 1, **characterized** in that a wearing part replacement order is automatically issued as soon as the measurement data indicating the amount of erosion in the wearing parts reaches a predetermined threshold value.

3. An apparatus for measuring and monitoring the setting of a crusher during crushing, the apparatus comprising at least one wear sensor mounted on a crusher liner, means for adjusting the crusher setting, at least one sensor mounted on said means for adjusting the crusher setting and an automatic control system of the crusher, in which apparatus said crusher's automatic control system receives a first input signal from a wear sensor mounted on at least one liner of the crusher, said first input signal being suitable for determination of amount of erosion in said liner, and a second input signal from said sensor mounted on the setting adjustment means of the crusher, said second input signal being suitable for determination of the relative position of the support surfaces of the crusher's wearing parts, whereby the crusher's automatic control system is able based on both input signals to adjust the crusher setting so as to maintain the setting of the crusher in its predetermined value irrespective of the erosion of the wearing part, **characterized** in that at least one wear measurement sensor is mounted on each one of the crusher liners, and that said sensors are equipped with means for transmitting the measurement data wirelessly to the exterior side of the crusher.

4. The apparatus of claim 3, **characterized** in that the crusher's automatic control

system includes means for receiving said wirelessly transmitted data.

5. The apparatus of claim 3 or 4, **characterized** in that said sensors are equipped with means for generating the electrical energy required for the operation of the sensors.

6. The apparatus of claim 5, **characterized** in that said means for generating the electrical energy required for the operation of the sensors comprise elements suitable for converting kinetic energy into electrical energy.

7. The apparatus of claim 5, **characterized** in that said means for generating the electrical energy required for the operation of the sensors comprise a piezoelectric device.

8. The apparatus of claim 5, **characterized** in that said means for generating the electrical energy required for the operation of the sensors comprise means for generating energy from an electromagnetic field surrounding the crusher.

9. A sensor suitable for use in any one of the apparatuses disclosed in claims 3-8 for measuring the amount of erosion in the wearing parts of a crusher, **characterized** in that the wearing portion of the sensor comprises a resistor network formed by a plurality of resistors in parallel, whereby the resistors along with the erosion of the wearing part in the crusher become erosively disconnected from the resistive network thus changing the overall resistance of the circuit feeding current to the wear sensor, whereby a measurement signal proportional to the amount of erosion in the wearing part is generated.

10. A sensor suitable for use in any one of the apparatuses disclosed in claims 3-8 for measuring the amount of erosion in the wearing parts of a crusher, **characterized** in that the wearing portion of the sensor comprises a resistor network formed by a plurality of resistors in series, whereby the resistors along with the erosion of the wearing part in the crusher become erosively disconnected from the resistive network

thus changing the overall resistance of the circuit feeding current to the wear sensor, whereby a measurement signal proportional to the amount of wearing part erosion is generated.

11. A sensor suitable for use in any one of the apparatuses disclosed in claims 3-8 for measuring the amount of erosion in the wearing parts of a crusher, **characterized** in that the sensor is implemented such that the sensor utilizes acoustic waves.

12. The sensor of claim 11, **characterized** in that the sensor is an ultrasonic sensor.

13. The sensor of claim 11, **characterized** in that the sensor is implemented using MEMS technology in the sensor construction.

14. The sensor of claim 13, **characterized** in that the sensor is an acoustic emission detecting sensor.

15. The sensor of any one of claims 11-14, **characterized** in that the sensor incorporates separate means for emitting and receiving a sensing impulse.

16. A sensor suitable for use in any one of the apparatus disclosed in claims 3-8 for measuring the amount of erosion in the wearing parts of a crusher, **characterized** in that the sensor is based on a strain gage element.

17. The sensor of claim 16, **characterized** in that the sensor is also capable of measuring forces imposed on the wearing part during crushing.

18. The sensor of claim 16 or 17, **characterized** in that the sensor incorporates means for storing and wirelessly transmitting the identification data of the wearing part.

19. The sensor of any one of claims 16-18, **characterized** in that RF technology is used in the implementation of at least a portion of the sensor elements.